

$a_1 + a_1 q + a_1 q^2 = 11$
 $a_1 q = 11 \rightarrow a_1 q = 11$
 $\Rightarrow 11q^2 - 11q + 11 = 0$
 $q = \frac{1}{11}$ ✓
 $q = 11$ ✗
 $\Rightarrow a_1 = 11$
 $a_2 = 11$
 $a_3 = 1$

$\frac{11^2 + 11}{11} = \frac{11}{11 - 1} = \frac{1}{q} \rightarrow 11^2 = 11 - 11 + 11 - 1 \rightarrow 11^2(11 - 1) = 1$
 $a_1 = 1, a_2 = 11, a_3 = 1$
 $S = 1 \left(\frac{1 - (\frac{1}{11})^3}{1 - \frac{1}{11}} \right) = \frac{121}{11}$ ✓
 $q = \frac{1}{11}$

$S_3 = a_1 + a_1 q + a_1 q^2 + a_1 q^3 + a_1 q^4 \rightarrow a_1 (1 + q + q^2 + q^3 + q^4) \Rightarrow 11^2 \times \frac{121}{11} = 121$ ✓

$q = \frac{11 - 1}{11 + 1} = \frac{10}{12} = \frac{5}{6}$
 $a_2 = 10, a_3 = 11, a_4 = 12$
 $A + B = 10 + 11 = 21$ ✓

$q^{d+1} = \frac{11}{1} \Rightarrow q = 11$
 $a_2 = 11, a_3 = 11$
 $A + B = 11 + 11 = 22$ ✓

$-11, -\frac{11}{2}, \dots \rightarrow d = \frac{1}{2}$
 $a_{101} = a_1 + 100d = -11 + (100 \times \frac{1}{2}) = 1$

$11, a_2, \dots \rightarrow a_n = a_1 q^{n-1} = 1 \rightarrow 11 \times q^{n-1} = 1 \rightarrow q^{n-1} = \frac{1}{11} \rightarrow q = \frac{1}{11}$ ✓

$a_r = b_1$
 $a_s = b_r$
 $a_q = b_r$
 $b_r^2 = b_1 b_r \rightarrow (a_1 + rd)^2 = (a_1 + rd)(a_1 + nd) \rightarrow$
 $a_1^2 + 2a_1 rd + r^2 d^2 = a_1^2 + a_1 nd + r^2 d + r^2 d^2 \rightarrow d(2a_1 r + r^2 d - a_1 n - r^2 d) = 0$

$d = -\frac{a_1}{10}$ ✓
 $d = 0$ ✗

$a_r = b_1$
 $a_s = b_r$
 $a_n = b_r$
 $b_r^2 = b_1 b_r \rightarrow (a_1 + rd)^2 = (a_1 + rd)(a_1 + vd) \rightarrow -rd + rd^2 = 0 \rightarrow rd(-1 + d) = 0$
 $d = 0$ ✗
 $d = a$
 $a_r = 11, a_s = 11, a_n = 11$
 $K_{10} = a_1 q^9 \rightarrow \frac{1}{11} \times 11^9 = 11^8$ ✓

$$\begin{aligned}
 & r a q^r, r a q^r, a q^r \rightarrow r a q^r - r a q^r = a q^r - r a q^r \rightarrow a q^r (q - r) = a q^r (r q - r) \quad (1) \\
 & \rightarrow q^r - r q + r = 0 \quad \left\{ \begin{array}{l} q = 1 \text{ خذنا ثابت} \\ q = r \end{array} \right. \quad (2)
 \end{aligned}$$

$$\begin{aligned}
 d = -\delta / r d \rightarrow a_2 = r - \delta / r d = 1, r d \\
 a_n = r - 1 / r d = \delta / r d \\
 a_{11} = r - r = -1
 \end{aligned}
 \left. \vphantom{\begin{aligned} d = -\delta / r d \\ a_n = r - 1 / r d \\ a_{11} = r - r \end{aligned}} \right\} \rightarrow \left. \begin{aligned} (a_n + k)^r &= (a_{11} + k)(a_2 + k) \\ &\rightarrow k = -\delta / r d \end{aligned} \right. \quad (2)$$

$$\sigma_{11} = -9, r d, -\delta, -\delta \rightarrow q = \frac{-\delta}{-\delta} = \frac{-\delta}{-\delta} = \frac{-\delta}{-\delta} = 1, r d$$

$$\begin{aligned}
 a + a q^r + a q^r = v r \rightarrow a (1 + q^r + q^r) = v r \quad d = a q^r - a_1 \quad (1) \\
 \rightarrow a_1 + a_1 d + a_1 + 9 d = v r
 \end{aligned}$$

$$\begin{aligned}
 10 a q^r - v a_1 = v r \\
 a (1 + q^r + q^r) = v r \left. \vphantom{\begin{aligned} 10 a q^r - v a_1 = v r \\ a (1 + q^r + q^r) = v r \end{aligned}} \right\} \rightarrow a (q^r - v) = a (1 + q^r) \rightarrow 9 a q^r - v a_1 = a_1 + a q^r + a q^r
 \end{aligned}$$

$$\begin{aligned}
 \rightarrow 9 a q^r - q^r - 1 = 0 \rightarrow \left\{ \begin{array}{l} q = 1 \text{ خذنا ثابت} \checkmark \rightarrow d = 0 \\ q = r \rightarrow a_1 (1 + 1 + r) = v r \rightarrow a_1 = 1 \end{array} \right.
 \end{aligned}$$

$$d = a q^r - a_1 \rightarrow (1 \times 1) - 1 = 0 \checkmark$$